CLAIMS

I claim:

1. An isolated nucleic acid comprising the nucleotide sequence of SEQ ID NO:1, or of a degenerate variant of SEQ ID NO:1.

2. An isolated nucleic acid comprising a sequence that encodes a polypeptide having the sequence of SEQ ID NO:2, or of SEQ ID NO:2 with conservative amino acid substitutions.

3. A nucleic acid construct comprising the nucleic acid of Claim 1 operably linked to a heterologous flanking sequence.

4. A nucleic acid construct comprising the nucleic acid of Claim 1 operably linked to a heterologous transcriptional regulatory sequence.

5. A nucleic acid construct comprising the nucleic acid of Claim 1 operably linked to a heterologous coding sequence.

6. A host cell comprising the heterologous nucleic acid of Claim 1.

7. A method of detection of a nucleic acid comprising measurement of the extent of hybridization of said nucleic acid to the nucleic acid of Claim 1.

8. A method of controlling the expression of a gene comprising the step of binding a transcriptional regulatory molecule to the nucleic acid construct of Claim 3.

9. An isolated polypeptide comprising the amino acid sequence of SEQ ID NO:2, or of SEQ ID NO:2 with conservative amino acid substitutions.

10. A method of controlling the expression of gene products at a multiplicity of loci in the genome of an organism, said method comprising: the site-directed or random mutagenesis of the

polypeptide of Claim 9 to form an altered polypeptide, said altered polypeptide possessing an affinity for a transcriptional regulatory factor different from the affinity of the polypeptide of Claim 9 for said transcriptional regulatory factor; the formation of an assemblage of said transcriptional regulatory factor with said altered polypeptide; and the direction of said expression at said loci by said assemblage.

11. A method of identifying an agent that changes the level of expression of a growth hormone gene, said method comprising: combining said agent with the nucleic acid construct of Claim 5; and observing the resultant change in transcription of said growth hormone gene.

12. A method of controlling the rate of growth of an organism, said method comprising the introduction of the nucleic acid construct of Claim 3 into said organism, said introduction altering the endogenous regulation of the expression of an endogenous growth hormone gene in said organism.

13. A method of controlling the rate of growth of an animal, said method comprising the introduction of the nucleic acid construct of Claim 3 into said animal, said introduction altering the endogenous regulation of the expression of an endogenous growth hormone gene in said animal.

14. A method of controlling the rate of growth of a vertebrate animal, said method comprising the introduction of the nucleic acid construct of Claim 3 into said vertebrate animal, said introduction altering the endogenous regulation of the expression of an endogenous growth hormone gene in said vertebrate animal.

15. A method of controlling the rate of growth of a mammal, said method comprising the

introduction of the nucleic acid construct of Claim 3 into said mammal, said introduction altering the endogenous regulation of the expression of an endogenous growth hormone gene in said mammal.

16. A method of controlling the rate of growth of a mouse, said method comprising the introduction of the nucleic acid construct of Claim 3 into said mouse, said introduction altering the endogenous regulation of the expression of an endogenous growth hormone gene in said mouse.

17. The method of Claim 10 wherein the altered polypeptide binds a multiplicity of transcriptional regulatory factors to form the assemblage.

18. A method of controlling the expression of gene products throughout the entire genome of an organism, said method comprising: the introduction of an alteration to the polypeptide of Claim 9 to form an altered polypeptide; the assembly of a multiplicity of transcriptional regulatory factors on the altered polypeptide to form a controllable platform; and the specific targeting of the controllable platform to a plurality of promoters in said genome.

19. The method of Claim 7 wherein the nucleic acid being detected is taken from a human subject and wherein the hybridization measured is compared with the hybridization of another nucleic acid taken from a human subject to the nucleic acid of Claim 1.

20. A method of treating a human patient in whom it is desired to regulate metabolic rate or growth comprising the administration to said patient of a therapeutically effective amount of the nucleic acid of Claim 1.